

Marine biodiversity studies by Clarrie Handreck and the Marine Research Group

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Abstract

The Marine Research Group (MRG), a special interest group of the Field Naturalists Club of Victoria, make significant contributions to our knowledge of marine biodiversity in Victoria and Australia. Some of those contributions are highlighted, as is the close and productive relationship with Museum Victoria and the role played by a leading member of the MRG, the late Clarrie Handreck. (*The Victorian Naturalist* 127 (6), 2010, 224–227)

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This issue of *The Victorian Naturalist* commemorates Clarrie Handreck in a most appropriate way, by bringing together original contributions to our knowledge of marine biodiversity in Victoria. Knowledge of the diversity and natural history of the marine life of our region has been a life-long goal of Clarrie Handreck and of the many like-minded colleagues who make up the Marine Research Group (MRG), a Special Interest Group of the Field Naturalists Club of Victoria (www.fncv.org.au/marine.htm). A number of contributions here add significantly to our knowledge of marine molluscs and pycnogonids, yet these are only the tip of an immense iceberg of knowledge accumulated by Clarrie and his colleagues over many decades. The aim of this article is to show the great value of these contributions; to comment not only on the tip, but on the rest of the iceberg.

A picture of Clarrie is well-painted in the contributions of Chris Rowley and of Michael Lyons. He was a highly motivated naturalist with strong social and environmental morals and a commitment to learning more about marine life, and sharing that knowledge and enthusiasm with others. Clarrie was the unofficial but universally acknowledged 'General' of the MRG, and their values, goals and achievements are so closely shared that it is difficult to speak of one without including the other.

All the enduring qualities of Clarrie and the MRG are in evidence in this volume, and in their wider work: a fascination with natural history; a strong interest in taxonomy; recognising and distinguishing species of marine life; a deep desire to make a permanent record of

their knowledge; and, finally, a willingness to impart that knowledge to others. I would like to write a little of these qualities.

The Marine Research Group includes many highly skilled observers whose local taxonomic knowledge, especially of the intertidal and shallow marine fauna, is without peer. Although their achievements are as 'amateurs', that word is accurate only in the sense that they are unpaid. Many have well-deserved national and international reputations in the taxonomic community and have discovered and given scientific names to many new species. Compilation of a complete list of the species they have described would be voluminous and beyond the scope of this article, but a number must be mentioned and I include a few token citations of their published work. Robert Burn, whose initiative has resulted in this volume, has by my count (and including the new species described in this issue) described 61 local species of opisthobranch molluscs (nudibranchs and their relatives). The recently-published checklist (Burn 2006) includes still more new species recognised but awaiting description. Phillip Bock is renowned as a bryozoan (lace coral) taxonomist, expert on both fossil and living forms (Bock and Cook 2004). Mark O'Loughlin has described numerous species of sea stars and holothurians and has collaborated with many overseas colleagues (O'Loughlin and Waters 2004) to better understand the reproduction and genetics of these echinoderms. David Staples is a taxonomist and photographer who is expert in pycnogonids (so-called 'sea spiders' although pycnogonids and arachnids are only distantly related)

(Staples 2002). Jan Watson has an international reputation as a taxonomist expert in hydroids (Vervoort and Watson 2003). Many more could be listed, including many with specialist knowledge of gastropod molluscs including Cypraeidae, Marginellidae, Turridae and others. Many of the above have had parallel careers in related professional fields, but it is in the guise of MRG members that their taxonomic skills have been generated and published. Clarrie Handreck himself did not describe species and, humble to a fault, would claim his 'amateur' status if pressed. Yet he was the catalyst for much work that eventually became published by others. Clarrie knew the local fauna better than most and was often quickest to recognise something apparently new, more than one of which now bears his name in recognition, such as *Pagurixus handrecki*, a hermit crab (Gunn and Morgan 1992). The enthusiasm of Clarrie and colleagues is such that the MRG continues to foster others to gain and share new expertise. The result is to be seen in this issue, with contributions from Joan Hales, Alan Monger, Audrey Falconer and Platon Vafiadis, all having been actively encouraged by Clarrie Handreck. And the Group includes many more individuals besides.

Collectively, the knowledge and published works of the MRG represent a very significant part of Victoria and Australia's capability in marine biodiversity studies. Without MRG members, in most cases there would be no other person in our region with expert knowledge of many kinds of marine invertebrates. None of the staff of Museum Victoria has expertise in the organisms in which MRG members specialise and, in most cases, nor do the staff of other Australian natural history museums. Australia's marine life is so diverse that no realistic museum budget could ever hope to employ sufficient expert scientists. We simply must rely on many honorary experts (I shall desist from using the misleading term 'amateurs') and thus Museum Victoria is very pleased that many MRG members have accepted Honorary Associate status at the Museum. Without the MRG, for many kinds of marine life we would have no-one capable of authoritatively identifying the local fauna, no-one with the ability to describe the new species that are being discovered continu-

ally, no-one able to recognise species newly introduced from other harbours. If we want to understand Victoria's marine life fully, we need the MRG.

Another quality that is deeply embedded in the MRG, and was especially evident in Clarrie Handreck, is a desire to make a permanent record of their knowledge. Their many published scientific papers are one way in which this is achieved (a tiny fraction is cited at the end of this article). Many members of the Group were sought out to contribute chapters to the invaluable three volume *Marine Invertebrates of Southern Australia*, which is still the closest thing we have to a comprehensive summary of the marine invertebrate life of southern Australia (Bock 1982; Watson 1982; Burn 1989; Staples 1997). Another was the *Coastal Invertebrates of Victoria - an atlas of selected species*, published in 1984 (Phillips *et al* 1984) but long unavailable until thankfully reprinted in a revised edition in 2006. The *Atlas* was the outcome of a carefully planned survey of Victorian marine life, targeting a carefully chosen list of common and readily identified species which were subject to census throughout the Victorian coast. Clarrie was a prime architect of the field work demanded by the project and of publication of both editions. The *Atlas* was a far-sighted project which generated data invaluable to science and to environmental managers, and anticipated by decades the current efforts to make distribution maps of species ranges available via websites such as Online Zoological Collections of Australian Museums (OZCAM; www.ozcam.org.au) and the Atlas of Living Australia (ALA; www.ala.org.au). The collections and databases of Museum Victoria (and other Australian museums) are the irreplaceable data source on which OZCAM and ALA, and the MRG's 1984 *Atlas* are based. And it is these collections that are the other permanent legacy of Clarrie Handreck and the MRG. Clarrie and his colleagues always embraced the philosophy that is the reason for existence of natural history museums and their collections: no new species, no scientific paper, no distribution map, can be considered authoritative unless linked to preserved specimens sitting on the shelf of a museum collection. Those specimens are preserved in perpetuity

and are always available for critical study by researchers throughout Australia and the world. Clarrie Handreck and his colleagues laboured prodigiously over many years to ensure that this source of verification would be as complete and useful as possible, and the MRG continues that effort still, contributing many volunteer hours every week to help care for Museum Victoria collections and to build associated database records.

This article does not attempt to be a history of the MRG, yet a short historical digression is called for. Initially, the Marine Research Group existed as a group known as the Marine Study Group of Victoria, which had its inaugural meeting on 4 February 1957. Clarrie Handreck was not among the founding members, but I think first became active in the Group in the early 1970s. The Marine Research Group of Victoria was inaugurated on 25 March 1980 by amalgamation with the Underwater Research Group of Victoria, a contemporary group of individuals with an enthusiasm for natural history who were also SCUBA divers. On 10 February 1997, a special General Meeting approved the dissolution of the Marine Research Group and simultaneous merger with the Field Naturalists Club of Victoria.

With so many shared goals, it was natural that Clarrie and the then Marine Study Group of Victoria would form an early relationship with the then National Museum of Victoria (now Museum Victoria). Many present and past staff at the Museum, notably Sue Boyd and CC Lu, have been active in continuing to support the close relationship with the MRG, but it is another of my predecessors at the Museum, the late Dr Brian Smith, who deserves special mention for having the vision and confidence to initiate the relationship. It was Brian who commenced, in July 1967, monthly Saturday 'Museum Workdays' in which the Marine Study Group of Victoria would work alongside Museum staff to simultaneously build their own expertise and the collections of the Museum. Brian, himself an expert in land snails, recognised that the Museum would never be able to employ scientific staff with expertise in all kinds of animals. He also recognised the genuine knowledge and enthusiasm for marine life that was displayed by members of the Malacologi-

cal Society of Australasia, Marine Study Group of Victoria and Underwater Research Group of Victoria, whom he met at local meetings. (The Malacological Society of Australasia remains an active organisation with many members in common with the MRG.) Throughout the early evolution of the Group it was Brian Smith who fostered the enthusiasm and development of members and encouraged them to specialise and to publish their discoveries. In later years, it was Clarrie Handreck who most often took the initiative to marshal the considerable forces of the MRG in support of Museum Victoria collections. It is a pleasure to report that the tradition continues with a new generation of MRG members, including contributors to this special issue. The 'Museum Workdays' initiated by Brian Smith in 1967 continue to this day: 43 years and counting.

In my opinion, the reason that the MRG continues to flourish and to publish is due to another quality of Clarrie Handreck and founding members: they all had and still have an eager willingness to impart their knowledge and skills to others, and are always generous with their time. Clarrie and at least one other member, Mark O'Loughlin, were professional educators and at times took their students on trips to remote places that would be impossible in today's more tightly managed schools, but were no doubt formative for those lucky students at the time. Many MRG colleagues have similar skills as teachers of natural history. To join them on a foray on the rock platform at low tide was to see infectious enthusiasm for their subject. Worthy environmental morals were also displayed: there was no collecting without good reason and, of course, a valid permit. It is no wonder that so many newcomers to the field responded positively to a teaching style that somehow simultaneously achieved both humility and authority. This legacy is clearly evident in the current membership of the MRG, and in this special issue.

None of this would be possible without a deep fascination with natural history, for it is that enthusiasm that is behind all the achievements of Clarrie Handreck and of the MRG, as it is of the Field Naturalists Club of Victoria and naturalists everywhere. That enthusiasm, shared by both professional biologists and honorary

experts everywhere, is what makes the close relationship between the MRG and Museum Victoria a natural and productive partnership. Long may it continue.

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Clarrie Handreck pictured at the microscope, Cape Conran MRG extended field trip, February 2006.